

AMENDMENTS TO THE CLAIMS

Claims 1-57 (Canceled)

Claim 58. (Currently Amended) A communication method for a carrier-sense-multiple-access (CSMA) network including a radio terminal and a base station to which the radio terminal belongs, the communication method supporting request-to-send/clear-to-send (RTS/CTS) to prevent a collision of packets due to a hidden terminal, the communication method comprising:

RTS-transmitting including the base station transmitting a request-to-send (RTS) frame to the radio terminal during a transmission-suspend-period in which the radio terminal suspends transmission to prevent the collision of packets;

wherein when the base station does not receive a clear-to-send (CTS) frame from the radio terminal due to a suspension of the transmission, and when there is another data frame to be transmitted to another radio terminal, the base station performs a communication with the another radio terminal in priority to a communication with the radio terminal and the radio terminal extends the transmission-suspend-period based on a usage period for which the another radio terminal uses a channel;

RTR-transmitting including the radio terminal transmitting a request-to-receive (RTR) frame to the base station after the transmission-suspend-period has elapsed; and

data-transmitting including the base station transmitting a data frame to the radio terminal in response to the RTR frame.

Claim 59. (Previously Presented) The communication method according to claim 58, further comprising storing including the base station temporarily storing the data frame to be transmitted to the radio terminal.

Claim 60. (Previously Presented) The communication method according to claim 59, wherein the storing includes the base station storing the data frame after the base station transmits the RTS frame to the radio terminal for a predetermined number of times.

Claim 61. (Canceled)

Claim 62. (Previously Presented) The communication method according to claim 58, wherein when a plurality of base stations or a plurality of other radio terminals transmit a plurality of RTS frames, respectively, to the radio terminal during the transmission-suspend-period, the RTR-transmitting includes the radio terminal transmitting the RTR frame to the base stations or to the other radio terminals sequentially in descending order of priority.

Claim 63. (Currently Amended) The communication method according to claim 58, further comprises: wherein the data-retransmitting includes

the base station transmitting a request-to-send (RTS) frame to the radio terminal in response to the RTR frame;

wherein the data-transmitting including the base station does not transmit a data frame to the radio terminal in response to the RTR frame;

the radio terminal transmitting a clear-to-send (CTS) frame to the base station in response to the RTS frame;

the base station ~~retransmitting~~ transmitting the data frame to the radio terminal in response to the CTS frame; and

the radio terminal transmitting an acknowledgement (ACK) frame after having received the data frame.

Claim 64. (Currently Amended) The communication method according to claim 58, ~~wherein the data-retransmitting further includes:~~

~~the base station transmitting the data frame to the radio terminal in response to the RTR frame; and~~

the radio terminal transmitting an acknowledgement (ACK) frame after having received the data frame.

Claim 65. (Currently Amended) The communication method according to claim 63, wherein another radio terminal, which receives the RTR frame from the radio terminal or communicates with the base station that has received the RTR frame from the radio terminal, suspends transmission to prevent the collision of packets until the ~~data-retransmitting~~ data-transmitting is completed.

Claim 66. (Currently Amended) The communication method according to claim 64, wherein another radio terminal, which receives the RTR frame from the radio terminal or communicates with the base station that has received the RTR frame from the radio terminal, suspends transmission to prevent the collision of packets until the ~~data-retransmitting~~ data-transmitting is completed.

Claim 67. (Currently Amended) A radio terminal employing carrier-sense-multiple-access (CSMA) with request-to-send/clear-to-send (RTS/CTS) to prevent a collision of packets due to a hidden terminal, the radio terminal comprising:

an RTS-receiving unit that receives a request-to-send (RTS) frame from a base station, to which the radio terminal belongs, during a transmission-suspend-period in which the radio terminal suspends transmission to prevent the collision of the packets; and

an RTR-transmitting unit that transmits a request-to-receive (RTR) frame to the base station after the transmission-suspend-period has elapsed wherein when the RTS-receiving unit receives a plurality of RTS frames from a plurality of base stations or from a plurality of other radio terminals during the transmission-suspend-period, the RTR-transmitting unit transmits the RTR frame to the base stations or to the other radio terminals sequentially in descending order of priority.

Claim 68. (Previously Presented) The radio terminal according to claim 67, wherein when the RTS-receiving unit receives a plurality of RTS frames from a plurality of base stations

or from a plurality of other radio terminals during the transmission-suspend-period, the RTR-transmitting unit transmits the RTR frame to the base stations or to the other radio terminals sequentially in descending order of priority.

Claim 69. (Cancelled)

Claim 70. (Previously Presented) The radio terminal according to claim 67, further comprising:

- a CTS-transmitting unit that transmits a clear-to-send (CTS) frame to the base station in response to another RTS frame that is transmitted from the base station in response to the RTR frame; and

- an ACK-transmitting unit that transmits an acknowledgement (ACK) frame to the base station after having received a data frame that is transmitted from the base station in response to the CTS frame.

Claim 71. (Previously Presented) The radio terminal according to claim 67, further comprising an ACK-transmitting unit that transmits an acknowledgement (ACK) frame to the base station after having received a data frame that is transmitted from the base station in response to the RTR frame.

Claim 72. (Previously Presented) A base station employing carrier-sense-multiple-access (CSMA) with request-to-send/clear-to-send (RTS/CTS), the base station comprising:

- an RTS-transmitting unit that transmits a request-to-send (RTS) frame to a radio terminal during a transmission-suspend-period in which the radio terminal suspends transmission to prevent a collision of packets;

- an RTR-receiving unit that receives a request-to-receive (RTR) frame from the radio terminal after the transmission-suspend-period has elapsed;

- an RTS-retransmitting unit that retransmits the RTS frame to the radio terminal in

response to the RTR frame; and

a data-transmitting unit that transmits a data frame to the radio terminal in response to a clear-to-send (CTS) frame that is transmitted from the radio terminal in response to the RTS frame retransmitted.

Claim 73. (Previously Presented) The base station according to claim 72, further comprising a buffer that temporarily stores the data frame to be transmitted to the radio terminal.

Claim 74. (Previously Presented) The base station according to claim 73, wherein the buffer stores the data frame after the RTS-transmitting unit transmits the RTS frame to the radio terminal for a predetermined number of times.

Claim 75. (Previously Presented) The base station according to claim 72, wherein when the CTS frame is not transmitted from the radio terminal in response to the RTS frame transmitted due to a suspension of the transmission, and when there is another data frame to be transmitted to another radio terminal, the base station performs a communication with the another radio terminal in priority to a communication with the radio terminal.

Claim 76. (Currently Amended) A base station employing carrier-sense-multiple-access (CSMA) with request-to-send/clear-to-send (RTS/CTS), the base station comprising:

an RTS-transmitting unit that transmits a request-to-send (RTS) frame to a radio terminal during a transmission-suspend-period in which the radio terminal suspends transmission to prevent a collision of packets;

wherein when a clear-to-send (CTS) frame is not transmitted from the radio terminal in response to the RTS frame transmitted due to a suspension of the transmission, and when there is another data frame to be transmitted to another radio terminal, the base station performs a communication with the another radio terminal in priority to a communication with the radio terminal, the radio terminal extends the

transmission-suspend-period based on a usage period for which the another base station or the another radio terminal uses a channel;

an RTR-receiving unit that receives a request-to-receive (RTR) frame from the radio terminal after the transmission-suspend-period has elapsed; and

a data-transmitting unit that transmits a data frame to the radio terminal in response to the RTR frame.

Claim 77. (Previously Presented) The base station according to claim 76, further comprising a buffer that temporarily stores the data frame to be transmitted to the radio terminal.

Claim 78. (Previously Presented) The base station according to claim 77, wherein the buffer stores the data frame after the RTS-transmitting unit transmits the RTS frame to the radio terminal for a predetermined number of times.

Claim 79. (Canceled)

Claim 80. (Currently Amended) A communication method for a carrier-sense-multiple-access (CSMA) network including a radio terminal and a base station to which the radio terminal belongs, the communication method supporting request-to-send/clear-to-send (RTS/CTS) to prevent a collision of packets due to a hidden terminal, the communication method comprising:

RTS-transmitting including the radio terminal transmitting a request-to-send (RTS) frame to the base station during a transmission-suspend-period in which the base station suspends transmission to prevent the collision of packets or due to an interference;

wherein and when the radio terminal does not receive a clear-to-send (CTS) frame from the base station due to a suspension of the transmission, and when there is another data frame to be transmitted to another base station or to another radio terminal, the radio terminal performs a communication with the another base station or with the another radio terminal in priority to a communication with the base station, the base station

extends the transmission-suspend-period based on a usage period for which the another base station or the another radio terminal uses a channel;

RTR-transmitting including the base station transmitting a request-to-receive (RTR) frame to the radio terminal after the transmission-suspend-period has elapsed; and

data-transmitting including the radio terminal transmitting a data frame to the base station in response to the RTR frame.

Claim 81. (Previously Presented) The communication method according to claim 80, further comprising storing including the radio terminal temporarily storing the data frame to be transmitted to the base station.

Claim 82. (Previously Presented) The communication method according to claim 81, wherein the storing includes the radio terminal storing the data frame after the radio terminal transmits the RTS frame to the base station for a predetermined number of times.

Claim 83. (Canceled)

Claim 84. (Previously Presented) The communication method according to claim 80, wherein when a plurality of other base stations or a plurality of radio terminals transmit a plurality of RTS frames, respectively, to the base station during the transmission-suspend-period, the RTR-transmitting includes the base station transmitting the RTR frame to the other base stations or to the radio terminals sequentially in descending order of priority.

Claim 85. (Currently Amended) A base station employing carrier-sense-multiple-access (CSMA) with request-to-send/clear-to-send (RTS/CTS) to prevent a collision of packets due to a hidden terminal, the base station comprising:

an RTS-receiving unit that receives a request-to-send (RTS) frame from a radio terminal belonging to the base station during a transmission-suspend-period in which the base station

suspends transmission to prevent the collision of the packets or due to an interference; and

an RTR-transmitting unit that transmits a request-to-receive (RTR) frame to the radio terminal after the transmission-suspend-period has elapsed wherein when the RTS-receiving unit receives a plurality of RTS frames from a plurality of other base stations or from a plurality of radio terminals during the transmission-suspend-period, the RTR-transmitting unit transmits the RTR frame to the other base stations or to the radio terminals sequentially in descending order of priority.

Claim 86. (Canceled)

Claim 87. (Currently Amended) A communication method for a carrier-sense-multiple-access (CSMA) network including a radio terminal, a first base station, and a second base station, the communication method supporting request-to-send/clear-to-send (RTS/CTS) to prevent a collision of packets due to a hidden terminal, the communication method comprising:

transmitting including the second base station transmitting a frame for communication between base stations to the first base station during a transmission-suspend-period in which the first base station suspends transmission to prevent the collision of packets or due to an interference;

wherein when the second base station does not receive a response to the frame for communication between base stations from the first base station due to a suspension of the transmission, and when there is another data frame to be transmitted to a third base station or to the radio terminal, the second base station performs a communication with the third base station or with the radio terminal in priority to a communication with the first base station, the first base station extends the transmission-suspend-period based on a usage period for which the third base station or the radio terminal uses a channel;

transmitting including the first base station transmitting a request-to-receive (RTR) frame to the second base station after the transmission-suspend-period has elapsed; and

transmitting including the second base station transmitting a data frame to the first base

station in response to the RTR frame.

Claim 88. (Previously Presented) The communication method according to claim 87, further comprising storing including the second base station temporarily storing the data frame to be transmitted to the first base station.

Claim 89. (Previously Presented) The communication method according to claim 88, wherein the storing includes the second base station storing the data frame after the second base station transmits the frame for communication between base stations to the first base station for a predetermined number of times.

Claim 90. (Canceled)

Claim 91. (Currently Amended) A base station employing carrier-sense-multiple-access (CSMA) with request-to-send/clear-to-send (RTS/CTS) to prevent a collision of packets due to a hidden terminal, the base station comprising:

a receiving unit that receives a frame for communication between base stations from another base station during a transmission-suspend-period in which the base station suspends transmission to prevent the collision of the packets or due to an interference; and

a transmitting unit that transmits a request-to-receive (RTR) frame to the another base station after the transmission-suspend-period has elapsed wherein when the receiving unit receives a plurality of frames for communication between base stations from a plurality of other base stations during the transmission-suspend-period, the transmitting unit transmits the RTR frame to the other base stations sequentially in descending order of priority.

Claim 92. (Canceled)